

SHOOK, HARDY & BACON LLP

BUENOS AIRES
GENEVA
HOUSTON
KANSAS CITY
LONDON

HAMILTON SQUARE
600 14TH STREET, NW, SUITE 800
WASHINGTON, D.C. 20005-2004
TELEPHONE (202) 783-8400 ■ FACSIMILE (202) 783-4211

MIAMI
OVERLAND PARK
SAN FRANCISCO
TAMPA
ZURICH

Ramsey L. Woodworth
202.662.4851
rwoodworth@shb.com

March 9, 2001

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**FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY**

VIA HAND DELIVERY

Magalie Salas Roman, Esq.
Office of the Secretary
Federal Communications Commission
445 12th Street, S.W., Room TW-A325
Washington, D.C. 20554

Re: **Reply Comments**
ET Docket No. 00-258]
Spectrumlink Networks, Inc.

Dear Ms. Salas:

On behalf of Spectrumlink Networks, Inc., please accept an original, four copies, and a stamp-return copy of the attached Reply Comments in ET Docket No. 00-258. These Reply Comments are filed in response to the *Notice of Proposed Rule Making*, which was released on January 5, 2001.

If you have any questions, please contact the undersigned at (202) 662-4851. Thank you for your attention to this matter.

Respectfully submitted,



Ramsey L. Woodworth

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Before the
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

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MAR 9 2001

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of:

Amendment of Part 2 of the Commission's Rules
to Allocate Spectrum Below 3 GHz for Mobile
and Fixed Services to Support the Introduction
of New Advanced Wireless Services, including
Third Generation Wireless Systems

ET Docket No. 00-258

To: The Commission

REPLY COMMENTS
SPECTRUMLINK NETWORKS, INC.

Spectrumlink Networks, Inc. ("Spectrumlink") hereby submits the following reply comments in the above-referenced proceeding responding to those comments advocating the reallocation of current ITFS/MDS band spectrum for use by 3G service providers.

I. The Proponents Of Using ITFS/MDS Spectrum For 3G Services Fail To Recognize That Such Action Would Destroy Or Seriously Deter The Current Development Of Advanced, Fixed Wireless Services In The Band

A few commenting parties, such as Verizon Wireless, would have the Commission view the ITFS/MDS band as practically virgin spectrum that could be used for 3G service with little or no dislocation to existing licensees and services. Based solely on the mathematics of Commission rules permitting the leasing of spectrum capacity, it is argued that ITFS licensees actually use only a small part of the band for its intended instructional use purpose. Accordingly, it is concluded that at least 60 MHz could easily be reallocated for use by 3G service providers with no adverse affect.¹

1. See, e.g., Verizon Wireless Comments at 25-26 ("...it is reasonable to assume that significantly less than half of the 120 MHz of spectrum currently allocated to ITFS is actually used for instructional purposes. Thus, 60 MHz of spectrum could be reallocated and made available for 3G services while leaving ITFS licensees with the spectrum resources necessary to provide instructional services.").

(continued...)

This line of argument is wrong and completely misses the point. MDS/ITFS spectrum, as the Commission is well aware, is being used for its intended purpose - and this purpose is a critically important one. The history of the band discussed at length by Verizon Wireless is well known to the Commission and, indeed, was one of the reasons for the recent adoption of the Commission's comprehensive program for the development of advanced fixed broadband educational and other services in the band by existing band licensees.² Rather than even acknowledging the existence of this comprehensive program, the proponents of 3G services in the band seem to suggest that use of the band for any commercial purpose is an illicit activity sufficient to deprive an existing ITFS licensee of the right to use the spectrum. This, of course, is not the case.³ ITFS licensees, in partnership with MDS licensees and others, are now using the spectrum for the development of advanced broadband wireless systems exactly as intended by the Commission.

In this respect, the suggestion⁴ that the Commission should determine the extent to which ITFS licensees actually use the spectrum to provide instructional services flows from the erroneous premise that any spectrum leasing arrangement for the development of advanced broadband services

1. (...continued)

2. *See* Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, MM Docket No. 97-217, *Report and Order*, 13 FCC Rcd 19112 (1998).

3. The Commission's long-standing policy, just reaffirmed last year, rather encourages spectrum leasing:

We do not believe that there is any contradiction between an ITFS licensee performing its educational mission and that same licensee securing financial returns can and do provide substantial resources to the ITFS licensee in the performance of its educational mission. *Report and Order on Further Reconsideration and Further Notice of Proposed Rulemaking*, MM Docket 97-217, 15 FCC Rcd 14566, 14566, ¶¶ 9-10 (2000).

4. *See* Verizon Wireless Comments at 23-24.

is a suspect or impermissible activity. The net effect would be to have the Commission examine an irrelevant question. The plain fact is that ITFS/MDS spectrum currently is heavily licensed and being utilized efficiently for the development of advanced wireless services by existing band licenses in accord with well established Commission spectrum planning and use policies that were only recently reaffirmed by the Commission.⁵

Not only do the proponents of 3G use of ITFS/MDS spectrum ignore the Commission's comprehensive program, but they further ignore the key importance of this program to the development of a fully competitive broadband market. As a recent report issued by the General Accounting Office has found, presently there is a dearth of competition in the broadband services market that has serious implications for the development of competitively priced and universally available services.⁶ And as the President and co-CEO of Verizon Communications has recently recommended:

“Competition in broadband will consist of rival pathways to the home. Two such technologies already are available—cable modems and telephone digital subscriber lines. These will be joined in coming years by broadband fixed wireless and satellite connections. The primary objective of federal policymakers should be to encourage new investment and allow competition between these rival ‘last-mile’ technologies.”⁷

Certainly, this recommended “primary objective” should not be sacrificed by the reallocation for another use of spectrum only recently programmed by the Commission for the development of competitive advanced fixed wireless services and urgently needed for that purpose.

5. See Principles for Promoting the Efficient Use of Spectrum by Encouraging the Development of Secondary Markets, FCC 00-401, *Policy Statement*, ¶¶ 13-14 (rel. Dec. 1, 2000).

6. General Accounting Office Report, *Characteristics and Choices of Internet Users* (rel. Feb. 22, 2001).

7. Ivan Seidenberg, *Stop Blocking the Broadband Revolution*, WALL ST. J., Mar. 1, 2001, at A-22.

In this respect, the comments of numerous parties are clear that the sharing or segmentation of current ITFS/MDS bands would have a devastating impact on the development of advanced fixed wireless services. Co-channel sharing is universally agreed to be impossible. Band segmentation and the forced relocation of incumbent ITFS and MDS licensees to other bands similarly have been rejected by most commenting parties for sound policy, business and technological reasons. Nortel Networks, for example, a leading developer of 2.5 GHz band equipment, has advised that an abrupt change in spectrum designated for advanced fixed wireless development “would negate much of the work that has already occurred” with devastating effects on on-going business plans. As Nortel states:

“Cost effective two-way broadband equipment is just becoming available in the MDS/ITFS bands, whereas no such equipment for as yet unidentified reallocation spectrum can be expected for years to come. The Commission must also recognize that equipment manufacturers can be expected to discontinue or scale back research and development on MDS equipment if MDS/ITFS is going to be moved to another band. All of these consequences of relocation would substantially delay the delivery of two-way fixed broadband wireless services to the public and could irrevocably harm the business case for the deployment of such services.”⁸

Noting the “extremely complex interference environment” that already exists, CelPlan Technologies, a company with extensive first hand knowledge of the Appendix D interference analysis process, advises that the present environment does not permit “the segmentation of the band so as to provide an adequate contiguous block of spectrum nationwide that would realistically meet 3G mobile service needs.”⁹ For technology and worldwide allocation reasons, Lucent Technologies has advised that “it would be premature to employ the 2.5 GHz band for advanced [mobile] wireless

8. Nortel Networks, Inc. Comments at 7.

9. CelPlan Technologies, Inc. Comments at 2.

services.”¹⁰ And Cisco Systems, another manufacturer of fixed wireless broadband equipment, has stated that the business case for the roll-out of fixed broadband wireless services in both residential and rural markets by existing ITFS/MDS band licensees would be radically changed by any band segmentation plan.¹¹

While the proponents of 3G use of ITFS/MDS spectrum contend that the relevant public interest factors “weigh heavily in favor of a reallocation,”¹² the fatal flaw of their argument is that they have only looked at one side of the public interest equation dealing with their needs alone. These needs, even accepting present rough projections at face value, have to be balanced with the needs of the public for the advanced services currently authorized in the band. By any fair and objective standard, the proponents of placing 3G services in ITFS/MDS bands plainly have not met their heavy burden. To the extent relevant public interest factors supporting the reallocation of spectrum for 3G services may be present, they are far outweighed by the substantial and compelling public interest factors underlying the development of advanced fixed wireless broadband services in the band - - which even the President of Verizon has recognized should be the Commission’s primary objective.

Similarly, the proponents of 3G services in ITFS/MDS spectrum have not met their heavy burden of showing that the forced relocation of existing band licensees is in the public interest under well established Commission policy. A forced relocation scheme is not something that should be lightly undertaken by the Commission, but must be based a solid, factually specific finding that the

10. Lucent Technologies, Inc. Comments at 9.

11. Cisco Systems, Inc. Comments at 2.

12. Verizon Wireless Comments at 30.

relocation is technically and financially feasible.¹³ Until this proceeding, the Commission has never even proposed, let alone implemented, a forced relocation plan that effectively would do no more than substitute one advanced service for another in the target band. Rather, the relocation process has been limited to those situations in which old technologies have been required to give way to new technologies with no change to their basic system operations. Picking one advanced technology over another would be a far different process.

Moreover, reprogramming ITFS/MDS spectrum for 3G use would involve far more than just an unwarranted extension of the Commission's established relocation policies beyond their intended purpose, it would also reverse the Commission's comprehensive program for the development of advanced fixed wireless services in the band. Particularly as this program was strongly reaffirmed slightly over one year ago as the Commission's policy for the new millennium,¹⁴ it is hard to imagine a more abrupt and, by any rational standard, unexplainable change in the bedrock policies of an administrative agency.¹⁵

Acting in reliance on those policies and the Commission's invitation to develop advanced fixed wireless broadband services, ITFS/MDS licensees, equipment manufacturers and entrepreneurial entities like Spectrumlink have invested substantial resources in the development of advanced services in the band. Strong and compelling public interest considerations support the development of these advanced services. Their delivery to the public should not be stifled through

13. *See* NAB v. FCC, 740 F.2d 1190 (D.C. Cir. 1984).

14. *See Principles for Reallocation of Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium*, FCC 99-354, *Policy Statement*, 14 FCC Rcd 19868 (1999).

15. *See Greater Boston Television Corp. v. FCC*, 444 F.2d 841, 852 (D.C. Cir. 1970) ("an agency changing its course must supply a reasoned analysis indicating that prior policies and standards are being deliberately changed, not casually ignored"), *cert. denied*, 403 U.S. 923 (1971).

the further consideration of proposals to reallocate significant portions of ITFS/MDS spectrum for a different use.

II. The Development Of 3G Services Can Proceed On A Reasonable Basis Without Recourse To ITFS/MDS Spectrum

At this point in time, the ultimate spectrum needs of 3G service providers are, if anything, growing more uncertain. After much fanfare and highly successful spectrum auctions in certain European countries, more and more knowledgeable industry observers are beginning to ask the hard economic and market questions. One knowledgeable observer, for example, declared recently that “3G is over-hyped” and compared its development to the travail of high definition television, characterizing 3G as:

“A new technology few customers are clamoring for that would require phone companies to invest billions of dollars and consumers to pay thousands of dollars for new devices. Much cheaper incremental upgrades in both TV and wireless would make far more sense for both businesses and consumers...”¹⁶

In this respect, the developmental and marketing uncertainties which now surround anticipated 3G services appear to be substantial, including such concerns as the lack of a clear “killer service,”¹⁷ the projected heavy expense of 3G services¹⁸ and the question of the extent to which 2G technology or

16. Peter J. Howe, *Palm Chief Calls 3G Systems Costly, Over-Hyped*, BOSTON GLOBE, February 23, 2001; see also, Eugene Wee, *Speed Bumps on the 3G Superhighway*, project eyeball.technology, January 11, 2001 (“Some people have speculated that 3G is being driven by technology rather than by the market...”).

17. Tony Monroe & Reed Stevenson, *Killer 3G Applications Remain At-Large*, Reuters, December 2000.

18. Eugene Lacey, *Negroponte: “3G will not see the light of day,”* ZDNet, September 14, 2000 (“The problem, according to Negroponte and many other speakers at this week’s forum, is that the auctions have now saddled operators with a starting cost of over \$1,000 per subscriber. With no infrastructure, no handset, no research, no new services, and no new evidence to suggest the system will be vital to people, the future is not the safe bet many believe it to be, he said.”).

some variation thereof will be able to more realistically and economically meet market needs.¹⁹

Spectrumlink does not contend that 3G technology will never find a marketplace niche or that additional spectrum allocations will prove unnecessary to satisfy 3G needs. Quite to the contrary, it is reasonable to expect that some form of 3G technology will ultimately find its market and that advanced mobile wireless services overall, whether they be called 3G or by another pseudonym, will require more spectrum than currently allocated for 1G and 2G services. Rather, the point is simply that sound spectrum management policies mandate that a critically important, existing FCC advanced wireless services program that is now well underway should not be abandoned for the promise of another technology whose spectrum needs are still very much in the formative stage and cannot be precisely quantified at this point.

This is particularly true, as the one thing on which virtually all commenting parties seem to agree is that ITFS/MDS spectrum is not even a good option for 3G services. The FCC's Interim Report²⁰ reported that it could find no planned use of the 2.5 GHz band in Europe for 3G services, where the 1.9-2.1 GHz band appears to be the developing quasi standard. This is solidly confirmed by the commenting parties. Lucent, for example, has found no country in the world currently using the 2.5 GHz band for commercial mobile radio service.²¹ Closer to the United States, in the Western hemisphere, the two countries that share a common border with the United States and are its two

19. *The Cold Facts of 3G Wireless*, NEWSWEEK, February 13, 2001; *Speed Bumps on the 3G Superhighway*, *supra*, ("Like WAP, this new technology could be too pricey for most people"); *3G Slammed by French Mobile Service Provider*, EE TIMES, February 1, 2001 ("In particular, Bouygues' argument that upcoming 2G technologies will allow existing operators to deliver 3G look-alike services has raised further questions over the high prices paid for UMTS licenses by incumbents in other countries.").

20. Spectrum Study of the 2500-2690 MHz Band: The Potential for Accommodating Third Generation Mobile Systems," Interim Report, ET Docket No. 00-232, DA 00-2583, released November 15, 2000, at 13-14.

21. Lucent, Inc. Comments at 9.

largest trading partners, Canada and Mexico, do not intend to use the 2.5 GHz band for 3G mobile services.²² Thus, from the additional standpoint of global standardization and international roaming considerations, the one thing that is clear from the record is that ITFS/MDS spectrum is the least appropriate alternative for the development of 3G services in the United States.

Even the most ardent proponents of 3G use of ITFS/MDS spectrum seem to concede tacitly that it is not the preferable band for 3G services. Cingular, for example, agrees with the Commission's tentative conclusion that no further 3G allocations should be made in bands in which advanced services currently can be provided, given the heavy usage in these bands.²³ What Cingular fails to appreciate, however, is that ITFS/MDS spectrum has been allocated by the Commission for the provision of advanced services and is heavily used. Similarly, Verizon Wireless advocates the reallocation of a "substantial portion" of the 1755-1850 MHz federal government band for 3G services, but only "some portion" of the 2500-2690 MHz band. Its preference for the former is obvious from the start of its comments. Motorola, while noting that the 2500-2690 MHz band is highly desirable mobile spectrum, nonetheless concludes that it does not offer the same advantages of 1700 MHz bands and, in all likelihood, will not provide a near term solution for 3G spectrum needs. And finally, the record clearly establishes that sufficient reserves of spectrum, not now used for advanced services and more suitable for use for 3G services, can be made available to satisfy the reasonably foreseeable needs of 3G service providers without recourse to ITFS/MDS spectrum.

22. See, e.g., Radio Advisory Board of Canada Comments at 10-11; The Illinois Institute of Technology Comments at 18-19.

23. Cingular Wireless, LLC Comments at 15.

CONCLUSION

As pointed out by many commenting parties, the identification of ITFS/MDS spectrum for possible use by 3G service providers, standing alone, has had a significant negative effect on the ongoing development of advanced fixed wireless services in the band.²⁴ This impact, if allowed to continue, will even more seriously threaten the development of advanced services in the band, and frustrate the Commission's comprehensive program developed over the past five years. For these reasons, Spectrumlink urges the Commission to stay its course with respect to the development of fixed advanced services in ITFS/MDS spectrum by existing band licensees. The present cloud over the development of these vitally needed services should be lifted by immediately taking the ITFS/MDS band option off the table in this proceeding.

Respectfully submitted,

SPECTRUMLINK NETWORKS, INC.



By: Ramsey L. Woodworth
Edgar Class III
Shook, Hardy & Bacon, LLP
600 14th Street, N.W., Suite 800
Washington, D.C. 20005-2004
(202) 783-8400

Rudolph J. Geist
President, General Counsel
Spectrumlink Networks, Inc.
62 North Chapel Street
Suite 302
Newark, DE 19711
(302) 456-9900

March 9, 2001

24. See e.g., IP Wireless, Inc. Comments at 13; Catholic Television Network Comments at 25-27; National ITFS Association Comments at 32.